-RESEARCH ARTICLE-

A COUNTRY'S GROWTH-ASPIRING ENTREPRENEURSHIP ORCHESTRATES THE INTERPLAY BETWEEN CORPORATE TAXATION, VENTURE CAPITAL AVAILABILITY, AND SOCIAL LEGITIMACY

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─**Abstract**─

We examine the boundary conditions for the corporate tax rate and the growth of aspiring entrepreneurship relationships across countries. We argue that the effect of corporate tax on entrepreneurial growth aspirations is moderated by the availability of venture capital, which is then moderated by whether local social norms celebrate entrepreneurial success giving rise to a three-way interaction effect. We test our argument with a panel data analysis of 382 country-year observations for 78 countries from the Global Entrepreneurship Monitor (GEM), World Economic Forum (WEF), and World Bank databases. Our results reveal a significant three-way interaction effect with a diminished negative impact of corporate tax rates on growth-aspiring entrepreneurship when venture capital is available and when the social legitimacy of entrepreneurship is strong. Our findings imply that venture capital is an essential financial institution offering advisory support with finance to help entrepreneurs persist with their aspirations. Policymakers must note while tax generally inhibits entrepreneurship, growth aspiring entrepreneurs will continue with their efforts when the state facilitates the entry of venture capitalists into the local market and when the state makes deliberate attempts to promote and celebrate entrepreneurial behavior.

Keywords: Entrepreneurship, growth aspirations, resources, corporate tax, venture capital, norms, legitimacy

1. INTRODUCTION

From their origins as startups, micro, small and medium enterprises account for 90% of businesses and 60 to 70% of employment worldwide (Kushnir, 2010). In solving the burden of unemployment in many developing countries, it is helpful to recognize that a small number of high-growth firms create a large proportion of jobs (Grover et al., 2018). To increase the growth aspiring share of entrepreneurs within their countries, many governments turn to tax instruments; after all, they depend on these entrepreneurs to boost economic activity. But considering the characterization of growth aspiring entrepreneurs as an ambitious subset of entrepreneurs (Stam et al., 2011), we wonder whether high corporate tax rates will deter them from growing their young firms.

Extant research does not provide strong conclusions about the relationship between corporate taxation and growth-aspiring entrepreneurship across countries. But generally, it has been argued that this effect is negative. The proposed negative impact of corporate tax rates on the growth of aspiring shares of entrepreneurs across countries was supported by small samples of not more than 40 countries (Asoni et al., 2014). We also located a study (Bowen et al., 2008) where the corporate tax rate was used as a control variable, which strongly negatively affected the growth aspiring share of entrepreneurs across 40 countries. The negative effect was also evident in a study limited to Portugal (Venâncio et al., 2020). We also noticed interesting results Kneller et al. (2011) provided, albeit on general entrepreneurial entry, which we thought, intuitively, could apply to ambitious growth-oriented entrepreneurs (Guzmán et al., 2001). These scholars find that increases in firm-level taxes do not impact high-income firms as negatively as low-income firms.

With the hunch that ambitious growth-oriented entrepreneurs might persist with their aspirations despite increasing tax burdens, this article examines the boundary conditions for the corporate tax rate and growth of aspiring entrepreneurship relationships across countries. The article relies on the expectancy theory of motivation (Vroom, 1964) to select two boundary conditions. Expectancy theory proposes that individual motivation is a product of expectancy, valence, and instrumentality. Expectancy conceptualizes effort or ability as a source of motivation; instrumentality represents whether an effort can lead to rewards, and valence captures whether a reward is valuable to the individuals and can affect their motivation. By probing the literature for macro-micro linkages relating country context to personal motivation, we map instrumentality onto corporate tax rates because taxes can reduce profit rewards. We map expectancy onto venture capital availability because expert support from venture capitalists increases entrepreneurs' ability to grow their new ventures. We identify the social legitimacy afforded to entrepreneurship as important for valence because a society that celebrates individual wealth creation will lead to entrepreneurs not being embarrassed to pursue profits. We apply this theory to the cognitive process entrepreneurs might experience when faced with different country contexts. We hypothesize that corporate tax rates will

have their weakest negative effect in countries with high availability of venture capital and strong social legitimacy of entrepreneurial success.

We test our argument on 382 country-year observations for 78 countries from the GEM and World Economic Forum (WEF) databases. Our sample includes countries with a wide range of contexts, which allows us to increase the variance available for each of our study's explanatory variables. In addition, changes in the context of a single country and subsequent changes in an entrepreneur's motivation can be detected by the data's longitudinal attributes.

Our key contribution is to show that the expected negative effect of corporate tax rates on growth-oriented entrepreneurs has boundary conditions. We identify the circumstances where this negative effect may not be as severe as scholars make it for example, (Asoni et al., 2014; Lee et al., 2005). We show that this negative effect is almost absent among a small group of countries with strong financial institutions specific to venture capital and strong entrepreneurial norms.

This article also revives the literature that entrepreneurs are a persistent group of individuals (Holland, 2011). But the article restricts this persistence to the growth aspiring subset of entrepreneurs. Overall, we extend the discussion to growth-oriented young firms (Goedhuys et al., 2010; Grover et al., 2018; Léon, 2020; Moschella et al., 2019). We also advance the discussion on the effect of corporate taxation on entrepreneurship.

The article shows how an individual-level expectancy theory can explain how macro-level contexts influence entrepreneurial growth motivation. Expectancy theory proposes that individuals evaluate salient aspects of their environment interdependently (Peters, 1977; Weiner, 1985), but this has been ignored in the entrepreneurship literature. We commence with a discussion of theory and our hypotheses, followed by our methods. We then describe our findings and then discuss our contributions.

2. THEORY AND HYPOTHESES

Because corporate tax rates erode the firm's profitability and the entrepreneur's potential financial rewards, wealth-motivated entrepreneurs are likely to be sensitive to its changes. (Hessels et al., 2008a, 2008b) showed that wealth-motivated entrepreneurs require at least medium job growth rates to achieve their desired financial gains. But in the face of higher corporate tax rates, entrepreneurs may need even higher job growth rates. Yet there is hardly any empirical research looking at the effect of corporate tax rates on entrepreneurial growth aspirations.

Venâncio et al. (2020) found that corporate tax rates negatively affected the job creation of new ventures. The researchers retrieved data from an annual survey of firms submitted by municipalities to the Portuguese Ministry of Employment and Social Security. Tax

reforms were applied to startups, and the researchers analyzed the growth in jobs of these startups from 1997 to 2011. Difference-in-differences regression was conducted where the outcome variable was jobs created per municipality regressed on a binary variable of cities that reduced taxes and those that did not.

A small sample of not more than 40 countries also revealed a negative relationship (Asoni et al., 2014). This study relied on Global Entrepreneurship Monitor data on established owner-managed firms with at least 20 employees. We also located a study (Bowen et al., 2008) where the corporate tax rate was used as a control variable, which strongly negatively affected the growth aspiring share of entrepreneurs across 40 countries. The researchers relied on GEM data on the proportion of a country's entrepreneurs who expect to employ at least 20 persons within five years.

A picture emerges of a universal negative effect of corporate tax rates on growth-oriented entrepreneurship. There is no research exploring conditions that may support the persistence of growth-oriented entrepreneurs from being dissuaded by high corporate tax rates. We thus turn to theory. The study takes a novel approach to argue how the external environment, including tax rates, is constructed in the mind of each entrepreneur. Specifically, the sense of the growth aspiring entrepreneur orchestrates an interplay between corporate tax rates and other contextual variables (Shaver et al., 1992). We rely on expectancy theory to identify these variables and the nature of their interplay (Vroom, 1964).

2.1 Expectancy Theory

The expectancy theory of motivation proposes that individuals select among several alternative behaviors by considering which will result in the most desirable personal reward. Specifically, the theory conceptualizes personal motivation as the combined effect of expectancy, instrumentality, and valence. According to this schema, individual motivation is a cognitive process focusing on attitudes and beliefs and how they can predict aspirations and behaviors (Segal et al., 2005; Shapero et al., 1982). The constructs of expectancy theory help assess how growth aspiring entrepreneurs may process information from their country's environment. We expect entrepreneurs to determine the feasibility of firm growth outcomes and then evaluate whether it is valuable for them to try towards that outcome.

Growth aspiring entrepreneurs are likely to use information about corporate tax rates to assess their young firm's profit potential, akin to expectancy theory's notion of instrumentality: the belief that performance can result in personal reward. The size of the profit depends on their ability (Douglas et al., 2000), which is akin to the notion of expectancy: the belief that personal effort can result in performance. Because firm growth is a resource-intensive task, entrepreneurs may look to their ability to mobilize the resources available in their environment to form this belief. They may perceive greater capacity if resources are highly functional. When considered jointly with

instrumentality, this belief in one's ability suggests one's confidence to achieve an outcome (Mone, 1994; Segal et al., 2005), which alludes to not only whether one's effort can result in performance but whether one's effort can result in a sizable reward. In the end, assuming entrepreneurs are confident in their ability to grow their young firms, they may look to their environment for further obstacles. From the expectancy theory's notion of valence, which involves the attractiveness of the reward, we suggest that a critical obstacle arises from the social legitimacy of the outcomes they desire. Sizeable profits indicate the potential for considerable personal wealth and individual success. Societies approve of such products to different degrees of strength.

2.2 Corporate Tax Rates and a Country's Growth-aspiring Share of Entrepreneurs

For new ventures to sustain growth, it is first necessary to secure high levels of profitability (Davidsson et al., 2009). Because they erode firm profits, high corporate tax rates compromise the instrumentality of growth to attain high profits. And weak perceptions of instrumentality, according to expectancy theory, will reduce individual motivation. The retained earnings may serve as the only available resource for firm growth. High corporate taxes erode these earnings. Thus, we expect corporate tax rates to stifle a country's development and aspiring share of entrepreneurs.

There is some empirical evidence confirming the direct negative effect of corporate tax rates on the especially high growth aspiring share of entrepreneurs across countries. Used as a control variable in their study of institutional effects, (Bowen et al., 2008) revealed a significant impact of corporate tax rates on those high growth aspiring share of entrepreneurs who aspire to employ more than 20 people within the first five years of operations. Notably, this research was based on a sample of 40 countries. In other research, not based on the share of entrepreneurs but the share of working-age adults, (Asoni et al., 2014) also find a negative effect between corporate tax rates and growth-aspiring entrepreneurs across 38 countries. We, therefore, propose a universally negative impact of corporate tax rates on the growth aspiring share of entrepreneurs, including those with more moderate growth aspirations. Accordingly, we hypothesize:

Hypothesis 1: Corporate tax rates have a negative effect on a country's growth-aspiring share of entrepreneurs

2.3 The Role of Venture Capital Availability

Expectancy theory proposes that the influence of instrumentality on individual motivation is contingent on individuals' expectancy or perceived abilities (Mone, 1994; Segal et al., 2005). In other words, entrepreneurs' belief that their firm growth performance will result in personal wealth and success is also contingent on their belief that they can grow their young firms (Bandura, 1991). For growth projects, such perceptions of individual ability rely on the availability of resources, and in the entrepreneur's environment, financial resources and especially venture capital providers

tend to focus on supporting promising growth-oriented entrepreneurs (Clarysse et al., 2011; Fraser et al., 2015). Venture capitalists provide entrepreneurs with financial capital and management skills (Bertoni et al., 2011). This latter type of support differentiates venture capitalists from other financial service providers. For instance, venture capitalists may also provide management advice to help entrepreneurs overcome the costs of increasing corporate tax rates. Thus, with the high availability of venture capital, entrepreneurs perceive strong external support and rely less on their own perceived ability. As a result, the confidence arising from this type of external support helps entrepreneurs retain their motivation, and the decline in the growth aspiring share of entrepreneurs in such country contexts may not be as strong as in countries with low availability of venture capital. This leads us to hypothesize:

Hypothesis 2: The negative effect of corporate tax rates on a country's growth-oriented share of entrepreneurs is moderated by venture capital availability. This negative effect is weaker in countries with high availability of venture capital than in those with low availability of venture capital.

2.4 The Role of Social Legitimacy

According to expectancy theory, the combined effect of instrumentality and expectancy is moderated further by valence. In other words, the equivalent combined effect of corporate tax rates and venture capital availability relies on whether entrepreneurs find the rewards from firm growth attractive enough to increase their motivation to grow their young firms. To this extent, entrepreneurs' valence for a personal financial reward at low corporate tax rates can be dampened by a context in which entrepreneurs and their personal wealth goals do not enjoy social legitimacy (Klyver et al., 2010). Suchman (1995) defines legitimacy as "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (p. 574). In addition, social legitimacy becomes crucial because firm growth relies on mobilizing external resources (Jarillo, 1989). For example, entrepreneurs may find firm growth less attractive if they have trouble acquiring resources from bankers, technology suppliers, and even employees and customers who disapprove of their wealth ambitions.

Thus, we expect the combined effect of corporate tax rates and venture capital available to be further moderated by the social legitimacy of entrepreneurial success. We expect entrepreneurs' motivation to strengthen when social legitimacy is strong. As a result, differences in their perceived ability due to venture capital availability in their countries can strongly impact their motivation to grow their young firms. On the other hand, when social legitimacy is weak, entrepreneurs may have low aspirations, having been accustomed to the lack of support for their ambitions. Differences in the availability of venture capital will not impact their response to corporate tax rates as strongly as they will when social legitimacy is strong. In Hypothesis 2, we suggested that the negative

effect of corporate tax rates loses its strength in countries with high availability of venture capital than in those countries with low availability of venture capital. According to our argument, this will have more relevance in countries where the social legitimacy of entrepreneurial success is strong than in those countries where it is weak. Accordingly, we hypothesize:

Hypothesis 3: The moderating effect of venture capital availability on the relationship between corporate tax rates and a country's growth-aspiring share of entrepreneurship is moderated further by a country's social legitimacy of entrepreneurial success. The weaker negative effect of corporate tax rates due to the higher availability of venture capital is more likely when social legitimacy is strong than when it is weak.

From the above hypotheses, we need to analyze the influence of corporate tax rates on the growth-aspiring share of entrepreneurs across countries, jointly with the availability of venture capital and the social legitimacy of entrepreneurial success. Consequently, we arrive at a model in which corporate tax rates' effect on entrepreneurs' growth-aspiring share is moderated by venture capital availability, moderated by the social legitimacy of entrepreneurial success. This is illustrated schematically in Figure 1.
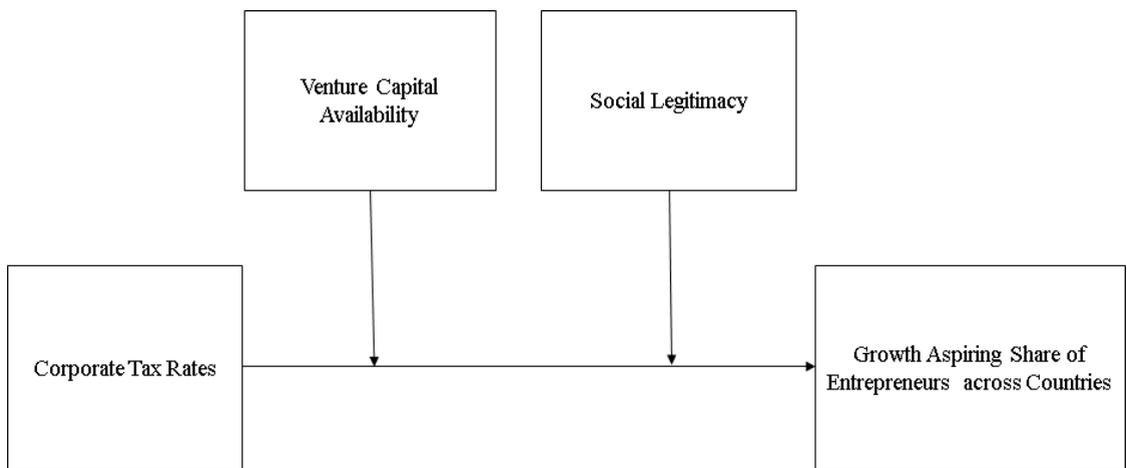
Figure 1. Conceptual Framework

3. METHOD

3.1 Overview of the Sample and Data Sources

We collated data from the World Economic Forum (WEF), World Bank (WB), and GEM databases in 78 countries[1] from 2005 to 2015. This dataset comprised 382 country-year

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[1] Our list of countries included: Argentina, Australia, Austria, Bosnia & Herzegovina, Belgium, Bolivia, Brazil, Canada, Chile, Columbia, Croatia, Czech Republic, Denmark, Dominican Republic, Ecuador, Egypt, Finland, France, Germany, Ghana, Greece, Guatemala, Hong Kong, Hungary, Iceland, India, Indonesia, Iran, Ireland, Israel, Italy, Jamaica, Japan, South Korea, Latvia, Macedonia, Malaysia,

observations, with 192 developed and 190 developing country-year observations. Developing countries include low-income, lower-middle-income, and upper-middle-income economies. We almost evenly spread the distribution of developed and developing country contexts to ensure our sample represented the different economic and social circumstances experienced by aspiring growth entrepreneurs.

From the GEM panel, we collected data on job growth aspirations. The GEM project developed standardized measures of the level and nature of a country's startup activity. This survey is conducted, in each country, by private market survey firms based on a representative weighted sample of at least 2,000 adults (ages 18–64). GEM data comprised annual country-level measures computed as weighted national averages (Raynolds et al., 2001). Finally, we collected data on each nation's total tax rates from the WB Doing Business database and perceived industry munificence from the WEF Global Competitiveness Index database. These data are extracted from surveys that capture the opinions of over 14,000 business leaders in about 144 economies.

3.2 Dependent Variable

The value of our dependent variable for each country is the observed share of entrepreneurs who expect to employ at least five employees five years from startup. GEM asks entrepreneurs to estimate the number of people they expect to hire within five years. From this, it determines the number of entrepreneurs who expect to hire at least five employees. This measure captures both medium and high-growth aspirations. Hessels et al. (2008b) and Hessels et al. (2008a) viewed this GEM data and defined medium job growth rates as the rate of entrepreneurs that expect to create six or more jobs in the next five years; they defined high job growth rates as the rate of entrepreneurs that expect to make 20 or more jobs in five years. GEM provides public data on both the individual entrepreneur's job expectations and the proportion of entrepreneurs with job expectations of at least five employees. This lower limit was acceptable considering our interest in capturing the growth aspirations of a broader set of entrepreneurs, including those in developing countries. Several researchers studying growth-oriented entrepreneurship develop measures from GEM's publicly available growth data to suit their studies (Estrin et al., 2013; Ordeñana et al., 2019).

3.3 Explanatory Variables

3.3.1 Corporate Tax Rates

This served as our primary explanatory variable, measured as a profit percentage. This information was collected from the WB Doing Business project. The total amount of

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Mexico, Montenegro, Netherlands, New Zealand, Norway, Panama, Peru, Philippines, Poland, Portugal, Romania, Russia, Serbia, Singapore, Slovenia, South Africa, Spain, Sweden, Switzerland, Thailand, Trinidad & Tobago, Tunisia, Turkey, UK, Uganda, Uruguay, Zambia.

taxes and contributions are the sum of all the different taxes and contributions payable after accounting for allowable deductions and exemptions. The taxes withheld (such as personal income tax) or collected by the company and remitted to the tax authorities (such as VAT, sales tax, or goods and service tax) but not borne by the company are excluded.

Many corporate decisions depend on effective tax rates rather than statutory rates, which merely provide the factor applied to the tax base (Gale et al., 2015). The World Bank Doing Business project's measure differs from the statutory tax rate. The project measures charges that affect business accounts, such as an income statement, not state accounts. It uses the notion of commercial profit, where all taxes are added back to determine a profit before all corporate taxes. In computing the traditional profit before tax, other corporate taxes are included in the costs above the profit line. As such, the project calculates the total tax rate by taking all corporate taxes as a percentage of profits before all corporate taxes (PWC 2016). The focus, however, is on standardized medium-size companies.

3.3.2 Venture Capital Availability

This served as our primary moderating variable. To assess the availability of venture capital across countries, we rely on a question in the WEF's Executive Opinion Survey: "Entrepreneurs with innovative but risky projects can generally find venture capital in my country." Respondents completed a seven-point scale where one was equal to "not at all" and seven was equal to "a great extent."

3.3.3 Social Legitimacy

This served as our secondary moderating variable. We assume that social legitimacy is essential in one's attitude towards an entrepreneurial career and associated outcomes such as financial gain and individual success. We used the GEM measure: "Percentage of 18-64 population who agree that most people in their country consider starting a business a desirable career choice."

3.3.4 Control Variables

Entrepreneurs may also draw their confidence from other contextual variables. We control for the proportion of the population that perceived that they, in the first instance, have the skills to start a firm, which is a sign of any latent confidence (Koellinger, 2008). For this measure, we looked to GEM: "Percentage of 18-64 population who believe in having the required skills and knowledge to start a business" We also controlled for tertiary education enrolment as a measure of the country's human capital. We used the WEF measure, which records total tertiary enrollment as a percent of the population of the age group that officially corresponds to the tertiary education level. We also controlled for national income or gross domestic product growth, which has been argued to impact the growth aspiring share of entrepreneurs across countries (Bowen et al.,

2008).

3.4 Data Analysis

Due to the panel structure of the data, standard applications of ordinary least squares regression were unsuitable for this study. Ordinary least squares regression assumes observations are independent, but with panel data, observations are linked by repeat observations of entrepreneurs from the same country across time. If these linkages are not addressed, they will be transferred into the error term, resulting in biased and inconsistent coefficient estimates. Therefore, we used specific panel regression techniques to test the significance of the two-way and three-way interaction terms.

To test if the coefficients estimated in both random and fixed effects models are the same, we used a Hausman-like test of fixed versus random effects: the Stata xtoverid command (Schaffer et al., 2006). Unlike the Hausman version, the xtoverid test enabled us to use the coefficients of the cluster-robust panel regression. Following the test, we found that fixed and random effects were different. When this is the case, the norm is to select fixed effects. Fixed effects have the advantage of reducing omitted variable bias. Finally, we used panel-clustered robust standard errors to control for serial correlation and groupwise heteroscedasticity.

Given the importance of the interaction effects, we consider the consequence of introducing multiplicative interaction terms into the models. All main effects were included in the full three-way interaction model (Cohen et al., 2014). We arrive at the following equation:

$$E_g = GDP_g + PA + HC + CT + VC + SL + CT \times VC + CT \times SL + VC \times SL + CT \times VC \times SL$$

Where,

E_g	=	Entrepreneurial growth aspirations
GDP_g	=	GDP growth
PA	=	perceived ability
HC	=	Human capital (tertiary education)
CT	=	Corporate tax rate
VC	=	Venture capital
SL	=	Social legitimacy

When bearing in mind our hypothesis, the interaction term's significance also signaled the importance of examining the nature of the interaction. We plotted the simple slopes (Dawson et al., 2006) to investigate the nature of the interaction.

To ease our interpretation of model coefficients, we standardized our variables. Our

model includes large numbers because of per capita GDP values in the magnitude of thousand and small numbers because of the Likert scale. Often in an unstandardized model, a coefficient of a variable such as GDP can appear statistically significant with a small coefficient, making it difficult to interpret whether its effect size is of practical importance.

4. RESULTS

Table 1 illustrates the variables' means, standard deviations, and pairwise correlations. Poor discriminant validity is indicated by pairwise correlations above .85 (Kline, 2013), leading to multicollinearity problems. Multicollinearity causes estimation problems when independent variables correlate with each other. But multicollinearity is not risked when independent variables correlate with a multiplicative interaction term (Dalal et al., 2012). Notably, the Stata software also omits severe collinear terms from a model. We did not find high collinearity between our independent variables, including control variables. The convention for interaction models is to mean-center all variables before the interaction terms are included (Aiken et al., 1991). Because we use standardized coefficients, there was no need to apply the centering procedure further. With our standardized model, total and individual item variation inflation factors (VIF) were well below the recommended ten (Hair, 1998). Our values were less than three.

Table 2 presents the results of our panel regressions. Though we follow convention and show control, direct, and interaction effects in stages, we wish to draw attention to recent arguments that the full three-way interaction model presents the true effects of all our variables. According to Aguinis et al. (2017), the "three-way interaction" model, unlike the "direct effects" and two-way interaction models, accommodates the expected real-world changes in their effects at different levels of one another. Because a direct effect, in the real world, occurs amongst its interactions with other variables, so they advise scholars to test an immediate effect for any predictor in the full interaction model when that predictor interacts with a moderator variable. Their argument becomes particularly evident when one tests for an antagonistic interaction, where an increasing moderator effect reverses the sign of the predictor that would have been estimated in a direct effects-only model.

Our findings support hypothesis 1. This hypothesis suggested that corporate tax rates have a negative effect on a country's growth-aspiring share of entrepreneurs. The full three-way interaction model in Table 2 shows that the coefficient of corporate tax rates is statistically significant (b=-0.32, p<0.1). Furthermore, the standardized magnitude of effect size is relatively large compared to coefficients of other independent variables; and it has the expected negative sign. This negative effect confirms prior findings (Asoni et al., 2014; Bowen et al., 2008; Venâncio et al., 2020).

Table 1. Descriptive Statistics and Correlations

|	**Mean**	**SD**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
1. Growth expecting a share of entrepreneurs	21.12	10.45							
2. GDP	23155.63	22334.03	0.07						
3. GDP growth	1.92	3.55	0.09*	-0.24*					
4. Perceived ability	50.37	15.28	-0.17*	-0.46*	0.04				
5. Corporate tax rates	43.27	17.78	-0.09*	-0.13*	0.05	-0.05			
6. Venture capital	3.05	0.81	0.09*	0.59*	0.02	-0.40*	-0.19*		
7. Human capital	51.59	24.46	0.17*	0.50*	-0.21*	-0.48*	0.10*	0.20*	
8. Social legitimacy	64.58	13.96	-0.01	-0.50*	0.14*	0.55*	-0.02	-0.29*	-0.48*

*$p<.05$

Table 2. Panel Regression Models (Fixed Effects)

Share of Growth-aspiring Entrepreneurs	Control Effects	Direct Effects	Two-way Effects	Three-way Effects
Constant	0.02	0.04	0.04	0.04
GDP growth	0.04	0.06*	0.06*	0.06*
Perceived ability	0.18	0.15	0.14	0.15
Human capital	0.09	0.08	0.08	0.05
Venture capital		-0.08	-0.12+	-0.13
Social legitimacy		-0.03	-0.004	0.003
Corporate tax rates		-0.26+	-0.25+	-0.32+
Corporate tax rates x Social legitimacy			-0.08	-0.01
Corporate tax rates x Venture capital			0.07	0.10+
Social legitimacy x Venture capital			-0.08	-0.10+
Corporate tax rates x Social legitimacy x Venture capital				0.15***
F statistic	2.2+	3.07**	4.87***	6.24***
AIC	472.87	451.18	452.44	446.93
Wald Test		1.40	1.22	8.20***
Within R square	0.02	0.03	0.04	0.06
Between R square	0.03	0.00	0.01	0.002
Overall R square	0.00	0.01	0.001	0.001
Adjusted R square	0.75	0.75	0.75	0.76

***$p<0.001$, ** $p <0.01$, * $p <0.05$, + $p<0.1$; 382 observations, 78 country groups.

Hypothesis 2 suggested that the negative effect of corporate tax rates on a country's growth-oriented share of entrepreneurs will be moderated by venture capital availability. It further proposed that the negative effect of corporate tax rates will be weaker in countries with high availability of venture capital than in those countries with low availability of venture capital. The three-way interaction model in Table 2 shows that the interaction term coefficient between corporate tax rates and venture capital availability (b=0.1, p<0.1) is statistically significant, supporting the proposed moderating effect of venture capital availability. To examine whether the nature of this moderating effect is as hypothesized, we plotted the simple slopes of the interaction between corporate tax rates and venture capital availability in Figure 2. We observe that the negative effect of corporate tax rates is indeed weaker for high availability compared to the low availability of venture capital. This supports our proposed nature of the interaction between corporate tax rates and venture capital availability.
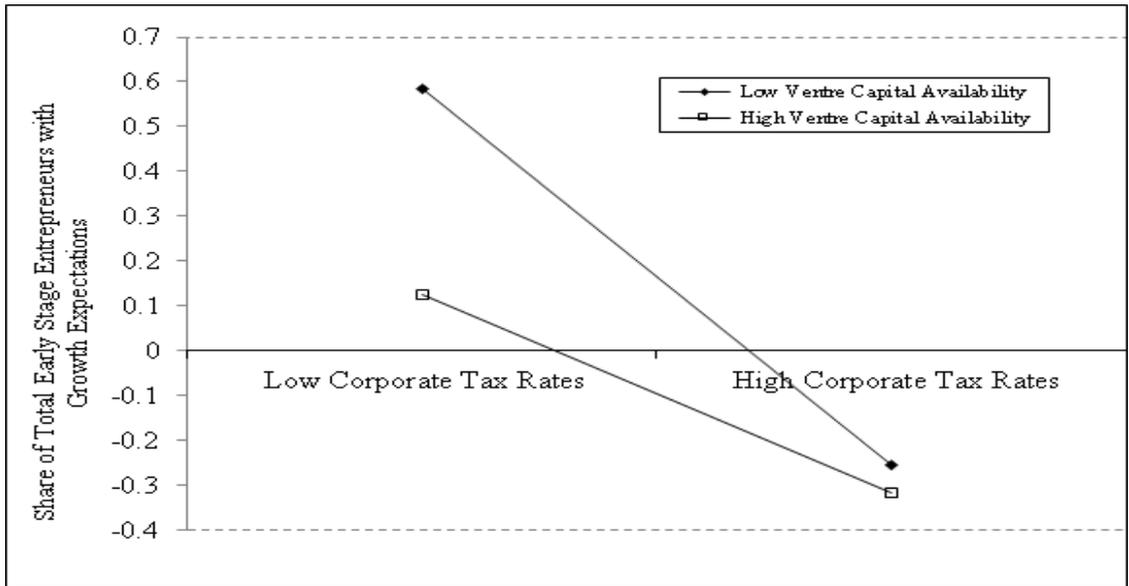
Figure 2. Simple Slopes: Simple Slopes: Two-Way Interaction between Corporate Tax Rates and Venture Capital Availability

Hypothesis 3 suggested that the moderating effect of venture capital availability on the relationship between corporate tax rates and a country's growth-aspiring share of entrepreneurship is moderated further by a country's social legitimacy of entrepreneurial success. Regarding the nature of this secondary moderating effect, it proposed that the weaker negative effect of corporate tax rates due to the higher availability of venture capital is more likely when social legitimacy is strong than when it is weak. Our results also support the proposed secondary moderating effect of social legitimacy on the interaction between corporate tax rates and venture capital availability (the three-way interaction term displays b=-0.15, p<0.001). To examine whether the nature of this moderating effect is as hypothesized, we plotted the simple slopes of the three-way interaction in Figure 3. We observe that the weaker negative effect of corporate tax rates due to the higher availability of venture capital is present when social legitimacy is strong. This supports our proposed nature of the three-way interaction term.

Finally, we ran robustness checks. We applied an alternate measure of social legitimacy in terms of the status of the entrepreneur. GEM measures this: "Percentage of 18-64 population who agree that successful entrepreneurs receive high status in their country." We also looked at an alternate measure of financial capital availability in the World Bank database: "In your country, how easy is it to obtain a bank loan with only a good business plan and no collateral?" [1 = extremely difficult; 7 = extremely easy]. Finally, we used the GDP per capita to represent overall industrialization across countries. Again, our three-way interaction term remained significant and positive in all three alternative specifications.
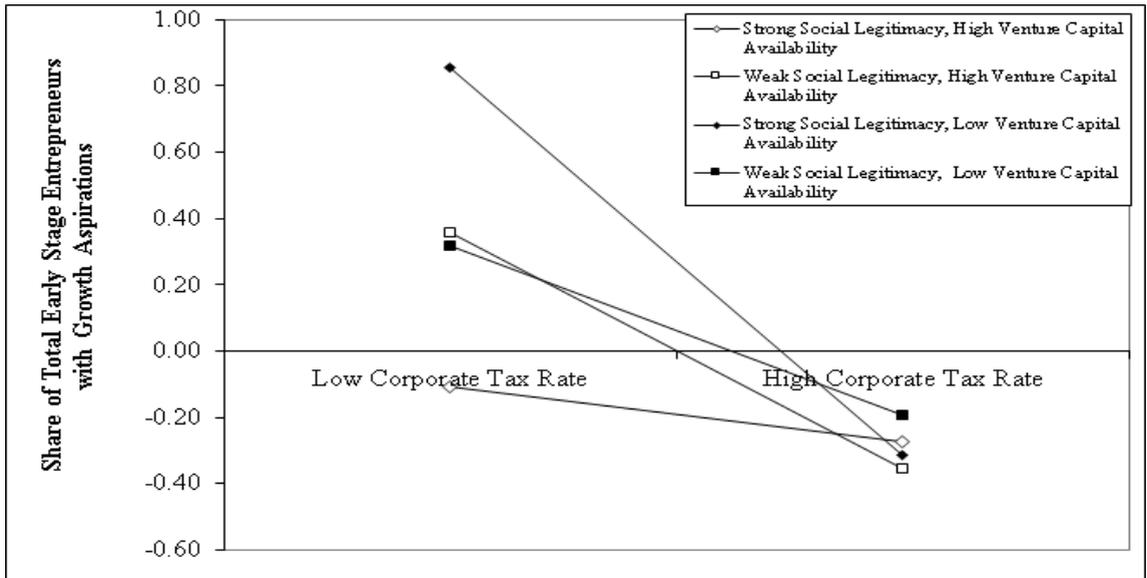
Figure 3. Simple Slopes: Simple Slopes: Three-Way Interaction between Corporate Tax Rates, Social Legitimacy, and Venture Capital Availability

5. DISCUSSION AND IMPLICATIONS

Our resultant hypothesis that corporate tax rates will have a negative effect on the growth aspiring share of entrepreneurs across countries received support from our analysis of 382 country-year observations for 78 countries from the GEM and WEF databases. Expectancy theory further proposes boundary conditions for corporate tax rates to impact individual motivation. To this extent, we hypothesized that the negative effect of corporate tax rates would be weaker when the availability of venture capital is high. We further hypothesized that this weaker negative effect of corporate tax rates due to the higher availability of venture capital would be applicable mainly in countries where the social legitimacy of entrepreneurial success is strong. Our results supported both hypotheses.

We make both a contribution to the theory and empirical research. We contribute to the theory by showing that expectancy theory, an individual-level theory, can explain how macro-level contexts influence entrepreneurial growth motivation. Expectancy theory proposes that individuals evaluate salient aspects of their environment interdependently (Peters, 1977; Weiner, 1985), but this has been ignored in the entrepreneurship literature.

Our empirical research provides boundary conditions for the relationship between corporate tax rate and the aspiring growth entrepreneurs share. Extant research (Asoni et al., 2014; Lee et al., 2005) proposes a universal negative effect of corporate tax rates on growth-oriented entrepreneurship. But this article shows that this effect is almost absent for a small group of countries with financial and human resources to support

entrepreneurs and strong social legitimacy for entrepreneurship. Furthermore, by identifying the boundary conditions for the negative corporate tax rate and growth-oriented entrepreneurship relationship, we contribute towards an understanding of how the individual shapes entrepreneurial motivation–environment context (Carsrud et al., 2011; Carsrud et al., 2017; Edelman et al., 2010; Elfving et al., 2009; Nuttin et al., 1984). Consequently, we respond to Wright et al. (2013)'s call to understand how cognitive processes shape entrepreneurial growth motivation within broader contextual dimensions than previously recognized.

Scholars have omitted cases where societies may trust governments to redistribute financial resources. As a result, entrepreneurs from such societies may accept the high corporate tax rates required for state revenue to support innovation and growth (Rothstein, 2001). Compared to other developed economies, statutory corporate tax rates are high in the United States (Mintz et al., 2014). But the US still retains a high growth aspiring share of entrepreneurs (Bosma et al., 2008).

In the spirit of conversations about policy and growth-oriented entrepreneurship (Autio et al., 2016), for policymakers looking into the incentive effects of corporate tax rates, the boundary conditions we have identified the need to be assessed in their countries to determine the magnitude and design of corporate taxation. Developing countries, in particular, may copy policy practices in developed countries without careful analysis of their context. Indeed, making financial resources available to grow aspiring entrepreneurs should be a policy goal for most governments. But not without addressing the legitimacy of entrepreneurial success, perhaps by communicating how entrepreneurs who have achieved high job growth in their firms have benefited local society by building personal wealth.

6. CONCLUSION

We examine the boundary conditions for the corporate tax rate and growth of aspiring entrepreneurship relationships across countries. We argued that the effect of corporate tax on entrepreneurial growth aspirations is moderated by the availability of venture capital, whose effect, in turn, is mediated by whether local social norms celebrate entrepreneurial success. We conclude that not all entrepreneurs will lose their motivation to grow their young firms upon increases in corporate tax rates. We identified essential boundary conditions in venture capital availability and the social legitimacy of entrepreneurial success.

In certain country contexts, where venture capital availability is high and local social norms celebrate entrepreneurial success, entrepreneurs are likely to persist with their growth aspirations despite higher corporate tax rates. Inherent in such societies may also be high levels of trust in government. Some of these societies, especially those with high resource munificence, may be experiencing a post-materialist phase of economic development where entrepreneurs turn to their aspirations for creative and fulfilling

work driven by intrinsic type desires. But further research is required to examine the integrity of such nuances. Our research design is not without any limitations, with us choosing to rely on secondary data. We cannot omit strong intrinsic motivation as a cause of the weak negative response to corporate tax rates in those countries with strong social legitimacy of entrepreneurial success and high availability of venture capital. Further research is required to model the arguments that growth-oriented entrepreneurs are ambitious and intrinsically motivated (Carsrud et al., 2011; Guzmán et al., 2001). We need to examine the extent to which intrinsically motivated entrepreneurs draw their motive force from external incentives provided by government taxation.

We also believe that scholars could explore certain country cases further. For example, Wiklund et al. (2003) found that Swedish entrepreneurs have greater noneconomic concerns for their employees' well-being than for expected financial outcomes from firm growth. Sweden is also known for its relatively high corporate tax rates. If there are countries with similar conditions to Sweden, such conditions could be another reason growth aspiring entrepreneurs are somewhat indifferent to corporate tax rates. Countries such as Sweden also possess high trust in government, which creates an environment conducive to governments using tax revenue to support growth and innovation among local firms. Trust is closely related to instrumentality, and at a macro level, proxies for trust may include corruption and the rule of law. Further research can, for example, look at the effect of corporate taxation on growth-oriented entrepreneurship across countries with different strengths of the rule of law.

Finally, we did not control employee tax. Entrepreneurs may likely persist with their growth motivation, mainly when corporate tax rates are substantially below personal income tax rates (Haufler et al., 2014). Returning to paid employment and its high personal income tax rates is not a favorable alternative to those growth aspiring entrepreneurs facing difficulties in their environment. We recommend that future work in this area control employee tax.

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